UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/643,489	08/19/2003	Fredric L. Cox	PST-003	PST-003 5435	
23562 BAKER & MC	7590 01/02/2008 PKENZIE LLP		EXAMINER		
PATENT DEPARTMENT			WALSH, JOHN B		
2001 ROSS AV SUITE 2300	VENUE		ART UNIT ·	PAPER NUMBER	
DALLAS, TX	75201		2151		
•			MAIL DATE	DELIVERY MODE	
			. 01/02/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	A mallandian Na	Annilla Mar				
	Application No.	Applicant(s)				
Office Action Summary	10/643,489	COX ET AL.				
Onice Action Summary	Examiner	Art Unit				
The MAIL INC DATE of this communication on	John B. Walsh	2151				
The MAILING DATE of this communication apperiod for Reply	pears on the cover sheet with the C	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  136(a). In no event, however, may a reply be tir  will apply and will expire SIX (6) MONTHS from  e, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on <u>24 October 2007</u> .						
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
•	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-71</u> is/are pending in the application	<b>l.</b>					
4a) Of the above claim(s) 13,16,30,33,34,37-4	4a) Of the above claim(s) 13,16,30,33,34,37-44,48,62 and 71 is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
	6) Claim(s) <u>1-8,11,12,15,17-21,23-26,28,29,32,35,36,45-47,49-55,59-61,63-65,69,70</u> is/are rejected.					
7)⊠ Claim(s) <u>9,10,14,22,27,31,56-58 and 66-68</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examine	er.					
10)⊠ The drawing(s) filed on <u>19 August 2003</u> is/are: a) accepted or b)⊠ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
<ol> <li>Certified copies of the priority documents have been received.</li> </ol>						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
	tor the certified copies not receive	su.				
Attachment(s)	_					
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> </ol>	4) Interview Summary Paper No(s)/Mail D					
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 7/19/05;1/30/04;6/10/04.	5) Notice of Informal F 6) Other:					

## **DETAILED ACTION**

### **Drawings**

1. The drawings are objected to because the text in figures 1-4 and figure 7 are written in cursive that is not clearly legible. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

## Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they

Art Unit: 2151

must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 67(second occurrence)-70 have been renumbered 68-71.

# Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-4, 11, 12, 15, 17, 20, 21, 23, 28, 29, 32, 45-47 and 49-52 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,230,190 to Edmonds et al.

As concerns claim 1, a data storage and retrieval system, comprising: a data processing server (col. 3, line 41;103-104; 142, 144; col. 6, lines 3-8) configured to receive incoming data and to transmit the data for storage; a plurality of data storage servers (106-108;154,156) each coupled to one or more data storage units and configured to receive transmitted data for writing to the one or more data storage units, and configured to read data from the one or more data storage units; a data retrieval server (150,152) coupled to one or more of the plurality of data storage servers and configured to retrieve data read by the one or more data storage servers from the one or more data storage units; and a plurality of process modules (col. 3, line 64-66) each associated with one of the plurality of data storage servers, at least two of the process modules configured to write a portion of the data to corresponding data storage units, each of the at least two process modules further configured to transmit an acknowledgment (fig. 9-

10/643,489 Art Unit: 2151

324,328-notification) associated with each of the corresponding at least two data storage units upon the writing of the portion of data in the corresponding at least two data storage units.

As concerns claims 2, 21 and 46, wherein the plurality of data storage servers is configured to receive the transmitted data across a TCP/IP (col. 4, line 35) connection with the data processing server.

As concerns claim 3, a data storage and retrieval system according to claim 1, wherein the process module is further configured to generate the acknowledgements (fig. 9-324,328-notification) associated with the at least two data storage servers.

As concerns claim 4, a data storage and retrieval system according to claim 1, wherein each of the at least two process module is configured to transmit the acknowledgments from each of the corresponding at least two data storage servers to the data processing server in response to the writing of the data portion in the at least two data storage units (fig. 9-324,328-notification-data must be written first for it to be present and then a notification/acknowledgment of its presence).

As concerns claims 11, 28 and 51, wherein the data processing server comprises an electronic mail data processing server (col. 4, line 66, col. 7, lines 21-22; col. 9, lines 15-16).

As concerns claims 12, 29 and 52, wherein the data comprises electronic mail message data (inherent for mail server to have mail data).

As concerns claims 15 and 32, wherein at least two data storage servers having an available connection are selected from the plurality of data storage servers at random (col. 2, lines 52-55-random since different read and write requests does not select the same server for the operation) for storage of the data portion in corresponding data storage units.

10/643,489

Art Unit: 2151

As concerns claim 17, a data storage and retrieval system according to claim 1, wherein at least two data storage servers having an available connection are selected from the plurality of data storage servers for storage of the data portion in corresponding data storage units based on the loading (col. 6, line 13) of each of the plurality of data storage servers.

As concerns claim 20, a method for storing and retrieving data, comprising: receiving incoming data (col. 3, line 41;103-104; 142, 144; col. 6, lines 3-8; fig. 3-transmit data over network) and transmitting the data for storage; writing a portion of the data in at least two data storage units (106-108;154,156); transmitting an acknowledgment (fig. 9-324,328-notification) associated with each of the at least two data storage units upon the writing of the data portion in the at least two data storage units; and retrieving the data (fig. 7; read/write data) portion from one or more of the at least two data storage units.

As concerns claim 23, a method according to claim 20, wherein the writing the portion of data and the transmitting an acknowledgment comprise writing the data in the at least two data storage units and transmitting an acknowledgement using a process module (col. 3, line 64-66) in response to the writing of the data portion in the at least two data storage units.

As concerns claim 45, a method for storing and retrieving data, comprising: receiving incoming data and transmitting the data for storage (col. 3, line 41;103-104; 142, 144; col. 6, lines 3-8; fig. 3-transmit data over network; data may be received from network or received from server/computer in view of NIC); creating storage server records comprising configuration information (fig. 10; sys. Mgmt; configuration) corresponding to connection path and availability of each of a plurality of data storage servers (106-108;154,156); identifying at least two of the plurality of data storage servers having an available connection using the storage

10/643,489 Art Unit: 2151

server records (fig. 7); establishing a connection to the at least two data storage servers (connection inherent for read/write); and writing a portion of the data in at least two data storage units corresponding to the at least two data storage servers and coupled thereto.

As concerns claim 47, method according to claim 45, further comprising retrieving the data portion from one or more of the at least two data storage units (read data from storage via network).

As concerns claim 49, method according to claim 45, wherein the storage server records are configured to be updated (fig. 10; write/delete, change state) with configuration information corresponding to data storage servers added to the plurality of data storage servers.

As concerns claim 50, a method according to claim 45, wherein the storage server records are configured to be updated in response to the removal of data storage servers (col. 2, line 52-fault tolerance, scalability) from the plurality of data storage servers.

## Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 5-8, 18, 19, 24-26, 35, 36, 53-55, 59, 60, 61, 63-65, 69 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,230,190 to Edmonds et al. as applied above in view of U.S. Patent No. 7,149,769 to Lubbers et al.

10/643,489 Art Unit: 2151

Edmonds et al. '190 do not explicitly disclose a storage information key to locate the data.

Lubbers et al. '769 teach storage information keys for locating stored data (col. 10, lines 5-45).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a key, as taught by Lubbers et al. '769, in order to improve recovery operations (col. 10, line 38). Such a modification is a combination of known elements yielding predictable results.

As concerns claims 18, 19, 35 and 36 Edmonds et al. '190 do not explicitly disclose a buffer.

Lubbers et al. '769 teach a buffer (col. 13, lines 10-13).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a buffer, as taught by Lubbers et al. '769, in order to improve transmission of data. Such a modification is a combination of known elements yielding predictable results.

### Allowable Subject Matter

7. Claims 9, 10, 14, 22, 27, 31, 56-58 and 66-68 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10/643,489 Art Unit: 2151

### Conclusion

- 8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.
- 9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John B. Walsh Primary Examiner Art Unit 2151